

Name of Practice: VOLUNTARY GRAZING LAND MANAGEMENT
DCR Specification for No. VSL- 9

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary grazing land management best management practice, that is applicable to all contracts, entered into with respect to this practice. Pastures are represented by those lands that have been seeded, usually with introduced species (*i.e.*, tall fescue, legumes) or in some cases to native plants (e.g. switchgrass or other native warm season grasses), and which are managed using agronomic practices for livestock.

A. Description and Purpose

A management system that will provide and insure adequate surface cover protection to minimize soil erosion. The system will reduce sediment, nutrients and pathogen loads in runoff.

To improve the quantity, quality and utilization of forage for livestock. To reduce the risk of surface and groundwater contamination from nonpoint source pollution from pastures by assuring that an adequate stand of forage is available to absorb runoff and reduce pollutants.

B. Policies and Specifications

All fields under this practice must have had all livestock previously excluded from all surface waters and sink holes. Any field that is part of a rotational grazing system is eligible. A written grazing management plan, and operation and maintenance plan that includes all acres in the grazing system must be prepared and followed in accordance with NRCS Field Office Technical Guide (FOTG).

1. The system developed with this practice must meet the following requirements:
 - i. Producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field that this practice will be implemented on. The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations, (4VAC50-85 et seq.) and the Virginia Nutrient Management Standards and Criteria (revised July 2014), must be prepared and certified by a Virginia certified nutrient management planner, and must be on file with the local District. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

- ii. Maintain adequate nutrient and pH levels to improve or maintain desired forage species composition, plant vigor, and persistence. Lime shall be applied in accordance with soil test recommendations.
- 2. Locate infrastructure to facilitate grazing management and manure distribution.
 - i. Manage the type and number of livestock, length of grazing period, based on available forage and allowable utilization targets. Manage livestock rotation to new paddock subdivisions to maintain minimum grazing height recommendations and sufficient rest periods for plant recovery according to NRCS Grazing Heights and Rest Guidelines by Forage Table 1 (attached). Size pasture and subdivisions, and manage animal stock densities to minimize grazing periods and maximize manure and urine distribution throughout the pasture.
 - ii. Maintain adequate plant cover of $\geq 60\%$ year round and pasture stand density to increase rainfall infiltration and decrease runoff from pasture lands for the lifespan of the practice.
 - iii. Locate feeding areas away from sensitive areas such as wetlands, sink holes streams/creeks and adjacent drainage swales etc.
 - iv. Manage distribution of nutrients and minimize soil disturbance at hay feeding sites by unrolling hay across the upland landscape throughout the pasture system when soils are well drained or moving hay rings periodically.
 - v. Designate a sacrifice lot/paddock to locate livestock for feeding when adequate forage is not available in the pasture system. A sacrifice lot is used during times of drought or during excessively wet soil conditions over the winter feeding season as a place to feed hay and supplements to livestock until pasture conditions are suitable for grazing or feeding without damaging the soil quality or reducing plant cover. Sacrifice lot/paddock should not drain directly into ponds, creeks or other sensitive areas and should not be more than 10% of the total pasture acreage.
 - vi. Must mow pasture as needed to control woody vegetation and encourage vegetative re-growth.
 - vii. Pastures not meeting minimum 60% year round cover criteria should be replanted in accordance to NRCS standard 512 Forage and Biomass Planting. Replanting will be at the participant's expense.
- 3. This practice is subject to the requirements of NRCS standards, 512 Forage and Biomass Planting, 516 Pipeline, 528 Prescribed Grazing, 561 Heavy Use Area Protection, and 614 Watering facilities.

4. Soil loss rates must be computed for all applications.
5. The practice must not be in lifespan from any other conservation program.
6. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

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Grazing Height and Rest Guidelines by Forage

Appropriate grazing and recovery periods allow forages to renew energy reserves, improve plant vigor, maintain or improve plant diversity, and provide long-term persistence of a productive forage stand. The grazing period should be adjusted based on stage of growth or forage height. Rest period between grazing events will vary in length depending on growing conditions and forage recovery.

Table 1. Guidelines for Grazing Heights and Rest Periods

Forage Species	Height to Begin Grazing (inches)	Height to End Grazing (inches)	Recovery Time (days) ¹
Tall Fescue	6-8	3-4	14-45
Orchardgrass	8-10	4-5	14-45
Bluegrass	4-6	2	14-45
Reed Canarygrass	10	3-4	14-45
Small Grains (Wheat, Rye, Oats, etc.)	8	2-3	7-15
Annual Ryegrass	6-8	3-4	7-15
Alfalfa	10-16	3-4	14-30 ²
Sericea lespedeza	8-10	4-6	14-45
Caucasian Bluestem	8-10	3-4	14-45
Bermudagrass	6	2	7-15
Switchgrass	18-24	9-12	30-45
Eastern Gamagrass	18-24	9-12	30-45
Crabgrass	6-8	2-3	14-21
Pearl Millet	18-20	8-12	10-20
Forage Sorghum	20-30	5-7	10-20
Sorghum Sudan Hybrids	20-24	5-7	10-20
Sudangrass	20-24	5-7	10-20

¹Recovery times are best based on regrowth. If pastures have not regrown, feed hay to animals in a sacrifice area.

²Grazing types of alfalfa can sustain with shorter recovery times under optimum growth conditions compared to hay types of alfalfa.

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